

**COMMONWEALTH OF VIRGINIA**  
**Department of Environmental Quality**  
**Tidewater Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS**

**Significant Permit Modification**

Naval Amphibious Base, Little Creek  
Virginia Beach, Virginia  
Permit No. TRO-60033

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Naval Amphibious Base, Little Creek has applied for a Significant Modification to the Title V Operating Permit for its Virginia Beach facility. The Department has reviewed the application and has prepared a draft modified Title V Operating Permit.

Engineer/Permit Contact: \_\_\_\_\_

Date: 2/07/06

Air Permit Manager: \_\_\_\_\_

Date: 2/07/06

Regional Permit Manager: \_\_\_\_\_

Date: 2/07/06

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## FACILITY INFORMATION

### Permittee

Commander, Navy Region, Mid-Atlantic  
Environmental Department, Code N45  
1510 Gilbert Street  
Norfolk, VA 23511-2737

### Facility

Naval Amphibious Base, Little Creek (NAB, Little Creek)  
Virginia Beach, VA 23521

County-Plant Identification Number: 51-810-00013

## SOURCE DESCRIPTION

NAICS 928110 - National Security

Many resident commands/activities and home-ported ships that perform various maintenance operations relating to vehicles, ships, boats, equipment, and buildings. NAB Little Creek also provides on-base facilities and services for the administrative and logistical support of the operating forces, resident commands, organizations, home-ported ships, and other United States and allied units. The base is used as a naval military training facility for the Atlantic Fleet.

The facility is a Title V major source of SO<sub>2</sub>, NO<sub>x</sub>, and VOC. This source is located in a marginal nonattainment area for ozone, and is a PSD-size source. The original Title V permit was issued on April 23, 2003.

## COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility and DEQ have entered into a Consent Order effective August 12, 2004, to resolve a Notice of Violation on February 23, 2004, alleging noncompliance with the throughput limits of gasoline, distillate oil, and kerosene in the Title V April 23, 2003 permit Conditions III.F.1.c, III F.1.d. and III.I.1.f, respectively. The Consent Order requires the facility to submit appropriate air permit modification applications and to obtain the permits.

## REQUESTED MODIFICATION AND REASON FOR MODIFICATION

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Following the original issuance of the Title V permit on April 23, 2003, the facility applied for, and was issued a minor NSR permit on April 23, 2004, and an SOP on May 31, 2005. The minor NSR was for the installation of four new oil/natural gas- fired boilers (BLR-001 though 004), replacing three existing coal-fired boilers (Group I boilers GIB-001 through 003, now called BOIL-001 through 003). The SOP was for the construction of a new indoor firing range (FIRI-002), and incorporating all current NSR conditions into one permit to ensure the synthetic minor status for HAPS. Therefore, the SOP superseded the NSR dated July 13, 2001 that was in the original Title V permit, and the NSR dated April 23, 2004, becoming the sole underlying permit for this Title V significant permit modification. The SOP also allows the necessary higher throughput limits for fuels, hence, its issuance on May 31, 2005, and this Title V permit significant modification, once issued, will satisfy the requirements of the Consent Order discussed above.

#### **APPLICABILITY OF 9 VAC 5-80-230**

This Title V permit modification will add new emission units which, in some cases, replace existing units. It will contain new emission limits for criteria pollutants, and facility-wide emission caps for HAPS, and all applicable requirements associated with the changes. It will also refine and reorganize existing conditions, and add requirements overlooked during the initial permitting process. Therefore, this modification will be processed using the Significant Modification Procedures as defined in 9 VAC 5-80-230.

#### **CHANGES TO TITLE V OPERATING PERMIT**

The current boilerplate for the writing of Title V permits is different from the one used for the Title V permit dated April 23, 2003. Beside the language changes, one of the main differences is that the section on Insignificant Emission Units is no longer placed near the beginning of the permit, right after the section on Facility Information. It is now near the end of the permit, just before the section on Permit Shield and Inapplicable Requirements.

The order of appearance of the various types of significant emission units at the facility is also changed. The section on Degreasing Operation has been moved down to just before the section on Facility-Wide Conditions. The sections on Fuel Pumping Stations and Loading Racks (formerly Sections III.F and G, respectively) have been rewritten into the Gasoline Operations and the Distillate Oil and JP-5 Operations, Sections VI and VII, respectively, in the modified permit. The section on Storage Tanks (formerly Section III.I) no longer exists because the tanks have either been included in the Gasoline, Distillate Oil/JP-5 Operations sections, or the Insignificant Emission Units section (XII). As a result, the discussions on the changes will follow the new outline with the former section number included when necessary for identification purpose. Most of the changes come from the new underlying permit, the SOP dated May 31, 2005 (SOP, Attachment A) that covers virtually all significant equipment at the facility and has gone through public participation. Other changes are mainly to improve the practical enforceability of the permit and/or compliance determination by additional requirements in periodic monitoring and recordkeeping that might not have been included in the SOP. All permit conditions from the Title V permit dated April 23, 2003 (the original Title V permit) will be carried

over to this modified permit, either unchanged or with minor language change, or changed in accordance with the SOP; any deletion or addition will be explained. The discussion below will also attempt to point out and provide rational for any deviations from the SOP, not to reiterate the changes which are directly resulting from the SOP.

### **I. Facility Information-**

The permittee's address, the responsible official, and the contact person have changed.

### **II. Abrasive Blasting Units (ABRA-002, 012, &023)-**

While the equipment list does not change, monitoring of the differential pressure drop across each baghouse as required in the SOP is added (Condition II.B.1).

The maintenance/operating procedures requirement from the SOP General Conditions section (Condition 80) is not in the General Condition section of Title V permit boilerplate. Therefore, it is carried over to the Facility Wide Conditions section of the new Title V permit (Section XI), and the associated recordkeeping requirement is incorporated to Condition II.C.3.

Test method 202 for PM/PM-10 is added to the Test Method list here (Condition II.D) and as appropriate in other sections.

### **III. Boilers (Group I & II)-**

For Group I boilers, all conditions on the four new oil/natural gas-fired boilers (BLR-001 through 004), and the three existing coal-fired boilers (BOIL-001 through 003, previously called GIB-001 through 003) that will be replaced on "transition day", are carried over from the SOP.

Only one Group II boiler remains on the equipment list (BOIL-004, previously called GIIB-4). Conditions applicable to this boiler are carried over from the SOP. Other Group II boilers and all boilers in Groups III and IV are now placed on the list of Insignificant Emission Units as they meet the criteria of 9 VAC 5-80-720 C. Therefore, the original Title V permit conditions associated with those insignificant boilers have been removed.

Compliance Assurance Monitoring (CAM) Condition (III.B.4) is added for the coal boilers (BOIL-001 through 3) because they are major emission units with emission controls which are subject to CAM rule as long as they are still operating. In addition to the differential pressure monitoring addressed in the CAM plan, monthly visible emission evaluations are also required for those boilers (Condition III.B.5).

Note that the equivalence of Condition B.1.q of the original Title V permit concerning proper operation and maintenance of the boilers is in the SOP under the General Conditions section (Condition 80), hence, not wholly carried over to the new permit. Instead, it is incorporated in the recordkeeping requirements (Condition III.C.8), and also under the Facility Wide Conditions section of the new Title V permit (Section XI). Note also that the word "tank", which should have been in new Condition III.B.3 as transferred from Condition 35 of the SOP, was removed at the request of the facility to better reflect the intent of the fuel sampling requirement.

#### **IV. Generators/Engines (Group II & III)-**

All previous Group I generators have been moved to the Insignificant Emission Units list with the exception of ICGF-37 that actually belongs to Group II due to its size. As a result, conditions in the original Title V permit related to Group I generators are deleted.

Some former Group II generators have been moved to the Insignificant Emission Units list. Some of the remaining ones are of larger size than allowed by 9 VAC 5-80-720 C (case of ICGF-37 and ICGF-49). Others meet the size limit but are used more than just for emergency generator purpose, for example, they are used as engines for training and pumping, and cannot keep the annual limit of 500 hours of operation (case of OCOM-10, 11, 19, and 20). Note that ICGF-37 and ICGF-49 are not listed in the SOP, however, the permit limits address the generators by "group", not by individual units, and the limits are still acceptable to the facility, so no changes to the limits are necessary. Only the word "engines" are added to the word "generators" and the word "combined" are added to the conditions where necessary for clarification purpose (e.g. Conditions IV.A.2, 3, 6, 7)

There are no changes to the list of Group III generators.

Note that all hourly emission limits in the original Title permit have been removed as done in the SOP because they were deemed unnecessary. Also, the equivalence of Condition D.1.k of the original Title V permit concerning proper operation and maintenance of Group III generators is in the SOP under the General Conditions section (Condition 80), hence, not wholly carried over to the new permit. Instead, it is incorporated in the recordkeeping requirement (Condition IV.C.3), and also under the Facility Wide Conditions section of the new Title V permit (Section XI).

The visible emission evaluation monitoring requirement for Group III generators per original Title V permit Condition D.3.a is retained with minor language changes (see Condition IV.B.3).

#### **V. Firing ranges (FIRI-001 & 002)-**

Periodic monitoring of visible emissions was not addressed in the SOP, so it is added here (Condition V.B). The associated recordkeeping requirement is also added (Condition V.C.3 and 4).

The maintenance/operating procedures requirement for the firing ranges from the SOP General Conditions section (Condition 80) is not in the General Condition section of Title V permit boilerplate. Therefore, it is carried over to the Facility Wide Conditions section of the new Title V permit (Section XI), and the associated recordkeeping requirement is incorporated to Condition V.C.2.

#### **VI. Gasoline Operations-**

As previously mentioned, this section and the section on Distillate Oil/JP-5 Operations are

derived from the Fuel Pumping Stations, the Loading Racks, and the Storage Tanks sections of the original Title V permit which have been extensively revised and reorganized in the SOP. Relevant SOP conditions are transferred directly here.

Note that the gasoline annual throughput limit of 5,735,000 gallons/year in Condition VI.A.2 is higher than the 5,584,000 gallons allowed in original Title V permit Condition III.F.1.c that was exceeded and led to the Consent Order dated August 12, 2004. Some of the gasoline pumping operations are small and have been moved to the Insignificant Emission Units section pursuant to 9 VAC 5-80-720 B.

Additionally, periodic monitoring of the Stage I vapor recovery system which was not in the SOP is added here (Condition VI.B) as well as the associated recordkeeping requirement (Condition VI.C.5).

## **VII. Distillate Oil/JP-5 Operations-**

The conditions in the SOP are directly transferred to the Title V permit with additional identification of the tanks that are subject to each throughput limit (Conditions VII.A.1 to 3). Note that the annual throughput limits of diesel oil in Conditions VII.A.2 and 3 (1,500,000 gallons and 4,500,000 gallons, respectively) are higher than the one in original Title V permit Condition III.F.1.d (271,026 gallons) that was exceeded and led to the Consent Agreement dated August 12, 2004.

No additional periodic monitoring is necessary. Some of the distillate oil pumping operations are small and have been moved to the Insignificant Emission Units section pursuant to 9 VAC 5-80-720 B.

## **VIII. Painting Operations-**

The equipment list is unchanged from the original Title V permit except that the paint spray booth PNTS-004 has been removed, and the aerosol can spray paint activity PNTO-019 has been changed to a brusher/roller painting activity.

The emission limits for HAPs have been revised in the SOP and carried over. All throughput limits stay the same.

## **IX. Woodworking Operations-**

These operations were not changed by the SOP. However, some changes are made for clarification/improvement purposes.

The control requirement in original Condition J.1.a is rewritten into two conditions, one for fabric filters (IX.A.1) and the other for the cyclones (IX.A.2).

Internal inspection for structural integrity was previously required for both cyclones and fabric filters (original Condition J.2.a). This requirement is now limited to cyclones only because it is not normally required for fabric filters (new condition IX.B.1). Also, as requested by the permittee

on 6/18/2004, and approved by DEQ on 6/29/2004, the cyclones that have no access doors will be subject to external inspection of duct work and the emission capture and control system instead of internal inspection.

#### **X. Degreasing Operations- Non-Halogenated Cold Degreasers-**

The list of degreasers has shortened considerably from the original Title V permit. The reason was that the degreasers that use hot water only without any VOC are named insignificant activities in 9 VAC 5-80-720 A, therefore, they are removed from the list. They are also not required to be included in the Insignificant Emission Units list pursuant to 9 VAC 5-80-710.

#### **XI. Facility-Wide Conditions-**

The HAPs emission limits in the SOP are carried over to ensure the synthetic minor status in HAPs for the facility (Condition XI.A.1). Facility-wide limits for criteria pollutants (original Condition IV.1.a) are deemed not necessary, hence, not carried over to the new permit, because the facility is already a major source and a PSD source.

As discussed earlier, the “Maintenance/Operating Procedures” condition from the General Conditions section of the SOP is also carried over here (XI.A.4).

#### **XII. Insignificant Emission Units-**

The list of insignificant units in the permit has become appreciably longer than before, due to better knowledge and application of the regulations in 9 VAC 5-80-710, et seq.

While the list of insignificant units in Chemical Cleaning, Fiberglass Repair, Material Transfer, Storage Piles, and Woodworking remain the same as in the original Title V permit (Part II), there is the addition of several boilers, emergency generators, small fuel pumping operations, and storage tanks which used to be accounted for as significant units as already discussed above. Several degreasers are water-based parts washers, qualify as insignificant activities per 9 VAC 5-80-720 A, hence they are not required to be listed.

Note that the insignificant Group II emergency generator OCOM-25 is new; it was not in the original Title V permit (Condition III.D) and not considered significant in Section IV of the new permit.

Tank group TG-VI appears to be skipped over in the Insignificant Emission Units list under Storage Tanks. Actually, the tanks in this group are the three JP-5 tanks (TNKA-044, TNKA-112, and TNKA-113) that are already addressed in the Distillate Oil and JP-5 Operations section (Condition VII.A.1).

Note that the kerosene storage tanks (TG-VII) where the annual throughput limit of 42,100 gallons in the original Title V permit Condition III.I.1.f was exceeded and subject to the Consent Agreement dated August 12, 2004, has been deemed to have potential emissions small enough to qualify as Insignificant Emissions Units pursuant to 9 VAC 5-80-720 B.

**XIII. Permit Shield and Inapplicable Requirements-**

This section is the same as in the original Title V permit.

**XIV. General Conditions-**

The boilerplate language is followed. Note that the semiannual reporting periods (Condition XIV.C.3) have been reverted to the standard ones of January 1 to June 30, and July 1 to December 31, as preferred by the compliance staff.

**XV. State-only Enforceable Requirements-**

This section is unchanged from the original Title V permit.

**PUBLIC PARTICIPATION**

The public participation requirements of 9 VAC 5-80-270 apply to this significant permit modification. A 30-day public notice is required. The proposed permit will be placed on public notice in the Virginian-Pilot from Friday, December 23, 2005 to Sunday, January 22, 2006.

**PERMIT REVIEW BY EPA AND AFFECTED STATES**

The EPA and affected states review requirements of 9 VAC 5-80-290 apply to this significant permit modification. A 45-day EPA review period is required. North Carolina is an affected state, and will be notified of this significant permit modification.